UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,683	05/24/2006	Kadosa Hevesi	339547US99PCT	2141

22850 7590 07/26/2010

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
XU, LING X	

ART UNIT	PAPER NUMBER
1784	

NOTIFICATION DATE	DELIVERY MODE
07/26/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/564,683	HEVESI, KADOSA	
	Examiner	Art Unit	
	Ling Xu	1784	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,18-26 and 28-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,18-26, and 28-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/7/2010 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 36-37, 39, and 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The specification does not provide sufficient description about the thickness of the absorbent layers comprising the material as recited in claim 1 to be between 4 and 12 nm for the first absorbent layer and at least 3 nm for the last absorbent layer. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

3. Claims 36-37, 39, and 41 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the absorbent layers comprising the material as recited in claim 1 to have a thickness of 3 or 4nm, does not reasonably provide enablement for the first absorbent layer comprising the material as recited in claim 1 to have a thickness of between 4 and 12 nm and the last absorbent layer to have a thickness of at least 3 nm. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 18-26, and 29-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Demiryont (US 6,190,776).

Demiryont discloses a heat-treatable coated glass article comprising a transparent glass substrate with a substantially transparent coating on a surface of the glass substrate, the coating comprises the following layers (see claims):

a first anti-reflection layer of dielectric material overlying the glass substrate,

a first chromium buffer layer overlying the first anti-reflection layer,

a first infra-red reflective layer of silver metal directly overlying the first buffer layer,

a second chromium buffer layer (note: this layer can be considered as a sacrificial layer) directly overlying the infra-red reflective layer,

an intermediate layer,

a second (last) infra-red reflective layer of silver metal directly overlying the third buffer layer,

a fourth (last) chromium buffer layer overlying the second infra-red reflective layer of silver metal, and

a third (last) anti-reflection layer of dielectric material overlying the fourth buffer layer.

Demiryont also discloses that the anti-reflection layers can be SnO2. The thickness of each chromium buffer layer is from 1 nm to 5 nm. The thickness of the infra-red reflective layer of silver metal is from 6 nm to 13 nm. Accordingly, the total thickness of the first and second silver metal layers is from 12 to 26 nm.

Regarding the optical properties recited in claims 1, 18, 21, 26, 29-32, and 34-35, as stated above, Demiryont discloses the stack of coating layers comprising the same structure and materials as claimed, the same coating would also have the same properties as claimed. More specifically, Boire discloses that the coated glass has a light transmission value from 50-85% and negative values of a* and b* in external reflection (col. 9, lines 15-35).

Demiryont also discloses that the glass substrate has a thickness of about 2.2 mm to 6 mm and has a visible transmittance of 40% to 70% (see claims).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Demiryont, as applied to claim1 above, and further in view of Boire et al. (US 6,045,896).

As stated above, Demiryont discloses that same transparent susbtrate as recited in claim 1.

Demiryont does not disclose the transparent substrate coated with a stack layers comprising an intermediate layer having an additional infrared reflective layer as recited in claim 28. However, it is known in the art that the stack can have more than two infrared reflective layers. For example, Boire teaches a transparent substrate coated with a stack of layers with infrared reflective function. The stack of layers comprises n functional infrared reflective layers and (n+l) coatings, wherein n can be one, two, three, or more. Each of the (n+1) coatings comprises dielectric material. The infrared reflective layers and dielectric layers are alternating so that each infrared reflective layer is placed between two dielectric layers (page 4, lines 60-67).

Accordingly, it would have been obvious to one of ordinary skill in the art to make the stack of coating layers disclosed by Demiryont to have more than two infrared reflective layers in order to provide more effective optical properties for the stack of the coating layers. When n is more than 2, the stack of layers comprises at least three infrared reflective layers. The second infrared reflective layer and the two dielectric layers sandwiched the second infrared reflective layer can be considered as the intermediate layer.

Response to Arguments

6. Applicant's arguments filed on 6/7/2010 have been considered but are moot in view of the new ground(s) of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling Xu whose telephone number is 571-272-7414. The examiner can normally be reached on 8:00 am- 4:30 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ling Xu
Primary Examiner
Art Unit 1784

/Ling Xu/
Primary Examiner, Art Unit 1784
July 20, 2010